



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

October 28, 2014

WELL WORK PERMIT

Secondary Recovery Well

This permit, API Well Number: 47-3305848, issued to HG ENERGY, LLC, is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.



James Martin
Chief

Operator's Well No: ELIZABETH FLETCHER 20
Farm Name: ROACH, M. & FLETCHER, F. ET /
API Well Number: 47-3305848
Permit Type: Secondary Recovery Well
Date Issued: 10/28/2014

Promoting a healthy environment.

PERMIT CONDITIONS

West Virginia Code §22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code §22-6-20, which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
2. Pursuant to 35 CSR 4-19.1.a, at the request of the surface owner all water wells or springs within 1000 feet of the proposed well that are actually utilized for human consumption, domestic animals or other general use shall be sampled and analyzed.
3. Pursuant to 35 CSR 4-19.1.c, if the operator is unable to sample and analyze any water well or spring with one thousand (1,000) feet of the permitted well location, the Office of Oil and Gas requires the operator to sample, at a minimum, one water well or spring located between one thousand (1,000) feet and two thousand (2,000) feet of the permitted well location.
4. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
5. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
6. During the surface casing and cementing process, in the event cement does not return to the surface, or any other casing string that is permitted to circulate cement to the surface and does not return to the surface, the oil and gas inspector shall be notified within twenty-four (24) hours.
7. Well work activities shall not constitute a hazard to the safety of persons.
8. Operator shall provide the Office of Oil & Gas notification of the date that drilling commenced on this well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov within 30 days of commencement of drilling.

1/12



4) UIC Permit No. UIC2R03301AP

Signature: Diane White
Department of
Environmental Protection

33058485

7012 3460 0002 6850 6449

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EF20

Sent To	
Murray, Coal	
Street, Apt. No., or PO Box No. 46226 National Road	
City, State, ZIP+4 St. Clairsville OH 43950	

PS Form 3800, August 2006 See Reverse for Instructions

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PARKERSBURG, WV
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EF20

Sent To	
Michael Roach	
Street, Apt. No., or PO Box No. 1530 Marshville Rd	
City, State, ZIP+4 Salem WV 26426	

PS Form 3800, August 2006 See Reverse for Instructions

7013 1090 0002 3242 9245

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EF20

Sent To	
Frederick Fletcher	
Street, Apt. No., or PO Box No. 5771 SR 21	
City, State, ZIP+4 Naples NY 14512	

PS Form 3800, August 2006 See Reverse for Instructions

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Office of Oil and Gas
OCT 02 2014
WV Department of Environmental Protection

WW-2B1
(5-12)

Well No. Elizabeth Fletcher 20

West Virginia Department of Environmental Protection
Office of Oil and Gas

NOTICE TO SURFACE OWNERS

The well operator named below is preparing to file for a permit from the state to drill a new well. Before a well work permit can be filed with the Chief of the Office of Oil and Gas, the well operator is required to have given notice of the right to request water well or spring analytical testing. This notice shall be given to the owners or occupants of land which have a water well or spring being utilized for human consumption, domestic animals, or other general use and which is located within 1000 feet of the proposed well site.

With this form, the operator is giving you notice of your right to request analytical testing. The operator is required to sample and analyze the water wells or springs of all owners or occupants who request it. Therefore, if you wish to have your water well or spring tested, contact the operator named below.

All sampling shall be completed prior to drilling. Within thirty (30) days of the receipt of such sample analyses the operator shall submit the results to the Chief of the Office of Oil and Gas and to the owners or occupants who may have requested them.

Be advised, you have the right to sample and analyze any water supply at your own expense.

Listed below is the laboratory chosen by operator to perform analysis, and contactor chosen to collect sample.

Certified Laboratory Name	<u>Sturm Environmental Laboratory</u>
Sampling Contractor	<u>Sturm Environmental Laboratory</u>

Well Operator	<u>HG Energy, LLC</u>
Address	<u>5260 Dupont Road</u>
	<u>Parkersburg, WV 26101</u>
Telephone	<u>304-420-1119</u>

FOR OPERATOR'S USE ONLY: Below, or on an attached page, list those persons which were given this notice. Place an asterisk beside the one(s) that contacted you and requested sampling and analyses. If there were no requests made, indicate by underling which one you have selected to sample and analyze. If there are no water wells or springs within 1000 feet of the proposed site, the Chief may require the operator to test wells up to 2000 feet from the proposed site.

Michael Roach
1530 Marshville Road
Salem WV 26426
(2 sources)

Frederick Fletcher
5777 SR 21
Naples NY 14512
(1 source)

WILL TEST AT LEAST
ONE OF ABOVE BEFORE
SPUDDING WELL.
JNM 10/27/14

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WV Department of
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STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator Name HG Energy, LLC OP Code 494497948

Watershed Ten Mile Creek Quadrangle Wolf Summit 7.5'

Elevation 1220' County Harrison District Ten Mile

Description of anticipated Pit Waste: Fluids encountered while drilling subject well

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes No ☒ X

Will a synthetic liner be used in the pit? Yes . If so, what mil.? 20 mil

Proposed Disposal Method For Treated Pit Wastes:

_____ x Land Application 10/11/14
 _____ Underground Injection (UIC Permit Number _____)
 _____ Reuse (at API Number _____)
 _____ Off Site Disposal (Supply form WW-9 for disposal location)
 _____ Other (Explain _____)

SDW
10/1/2014

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. Air, Fresh Water

-If oil based, what type? Synthetic, petroleum, etc.

Additives to be used? Water, Soap, KCl

Will closed loop system be used ? No

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Leave in pit

-If left in pit and plan to solidify what medium will be used? Cement, lime, sawdust Native soil, cement, lime

-Landfill or offsite name/permit number? _____

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature Diane White

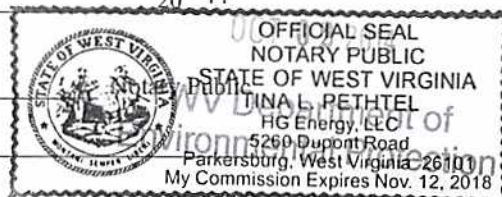
Company Official (Typed Name) Diane White

Company Official Title _____ Agent _____

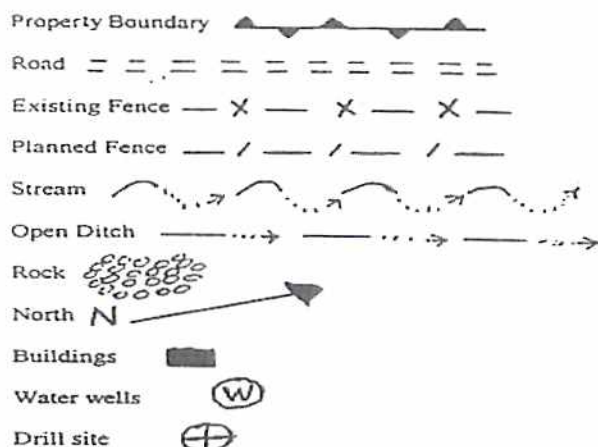
Subscribed and sworn before me this 24th day of September

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Office of Oil and Gas

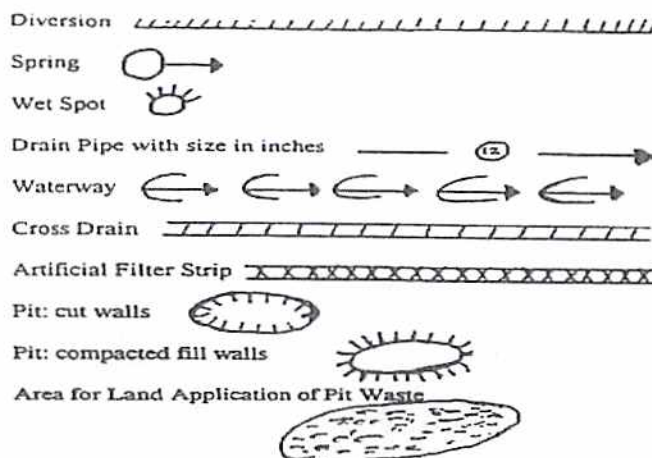
My commission expires Nov. 12 2018



Form WW-9

Operator's Well No. Elizabeth Fletcher 20

LEGEND

Proposed Revegetation Treatment: Acres Disturbed 2.0 acres Prevegetation pH _____Lime 2 Tons/acre or to correct to pH 6.5Fertilizer (10-20-20 or equivalent) 500 lbs/acre (500 lbs minimum)Mulch Straw 2 Tons/acre

Seed Mixtures

Seed Type	Area I	lbs/acre
Tall Fescue		40
Ladino Clover		5

Seed Type	Area II	lbs/acre
Tall Fescue		40
Ladino Clover		5

Attach:

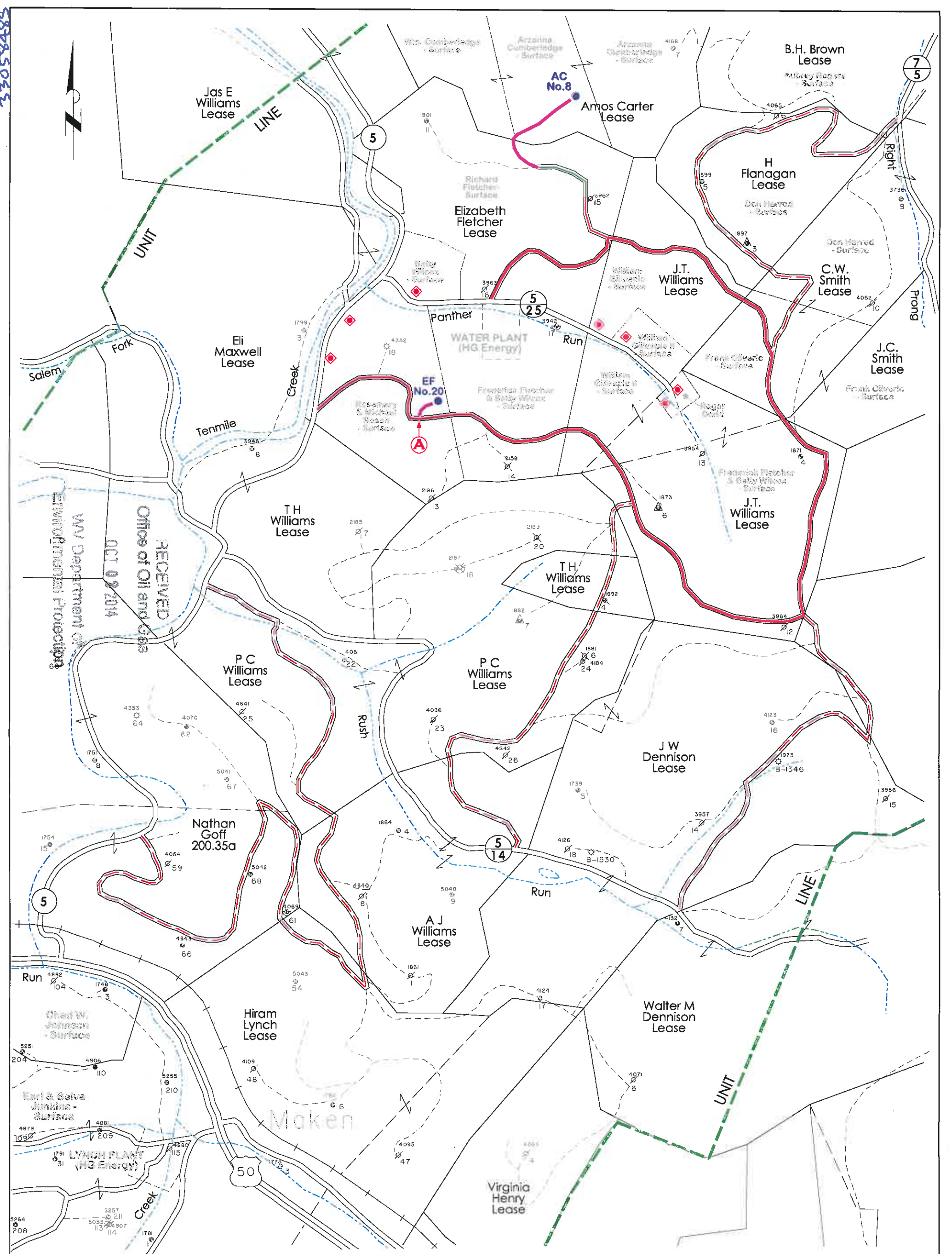
Drawing(s) of road, location, pit and proposed area for land application.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: S. J. D. WardComments: Pre-seed/mulch all disturbed areas as soon as reasonably possible per regulation. Upgrade E&S as necessary per E&S regulationTitle Oil & Gas InspectorDate: 10/1/2014Field Reviewed? ☒ Yes ☐ No

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33058485



WOLF SUMMIT WATERFLOOD
Harrison County, W.Va.
**RECLAMATION PLAN
SHOWING ROAD SYSTEMS
TO BE USED FOR 2014
DRILLING PROGRAM**
Elizabeth Fletcher No.20

NOTES

1. REFER TO THE WVDEP EROSION AND SEDIMENTATION CONTROL MANUAL (VER. MAY 20, 2013) FOR BMP'S CONTROLLING EROSION AND SEDIMENTATION FROM ALL SOIL-DISTURBING OPERATIONS.
2. SEE PAGE ONE OF RECLAMATION PLAN FOR DETAILS OF NEW ROAD CONSTRUCTION AND ROAD UPGRADES FROM POINT (A) TO DRILL SITE LOCATION.
3. EXISTING WATERFLOOD ACCESS ROADS WILL BE MAINTAINED IN PRESENT CONDITION. THESE ROADS WERE CONSTRUCTED UNDER CONDITIONS SET FORTH IN VARIOUS DRILLING PERMITS ISSUED BY WVDEP-OOG FROM 2003 - 2009 (AS SHOWN). SEE PERMITS ON FILE FOR MORE DETAIL.

LEGEND

- EXISTING WATERFLOOD ROADS TO BE USED.
- OTHER EXISTING MAIN WATERFLOOD ROADS (POSSIBLE ACCESS).
- EXISTING LEASE OR FARM ROADS TO BE UPGRADED.
- NEW ROADS TO BE CONSTRUCTED.
- LOCATION FOR PROPOSED WELLS
- POTENTIAL WATER SUPPLY SOURCE TO BE SAMPLED

Reclamation Plan For: Elizabeth Fletcher No.20



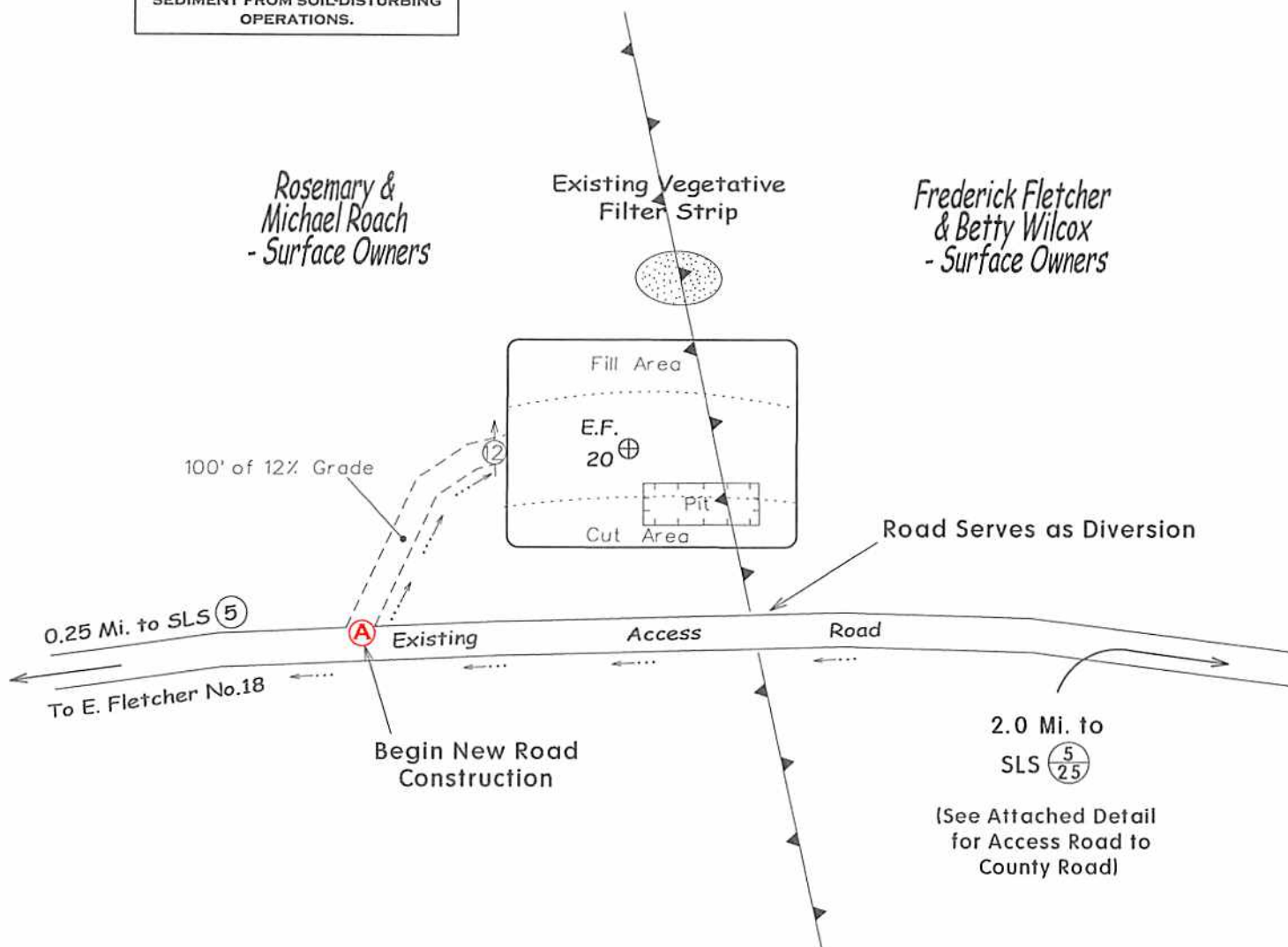
NOTE
REFER TO THE WVDEP
EROSION AND SEDIMENT CONTROL
FIELD MANUAL VER. MAY 2012 FOR
BMPs CONTROLLING EROSION AND
SEDIMENT FROM SOIL-DISTURBING
OPERATIONS.

Elizabeth Fletcher Lease

*Rosemary &
Michael Roach
- Surface Owners*

Existing Vegetative
Filter Strip

*Frederick Fletcher
& Betty Wilcox
- Surface Owners*



Notes:

- REQUESTED PERMIT IS FOR DRILLING OF NEW WELL.
- ACCESS ROAD FROM Co. Rd. 5/25 TO PT. (A) IS EXISTING. ROAD WILL BE UPGRADED TO WVDEP STANDARDS AND STRUCTURES INSTALLED AS SHOWN.
- ALL DISTURBED AREAS WILL BE RE-VEGETATED AS OUTLINED ON FORM WW-9.
- MAINTAIN SEDIMENT BARRIERS AND DRAINAGE STRUCTURES.
- ALL ROAD GRADES <5% EXCEPT AS NOTED.
- LOCATION OF DRILL PIT MAY BE CHANGED BASED ON AS-BUILT CONSIDERATIONS.
- DRAWING NOT TO SCALE.

SDW
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SUBJECT WELL
Elizabeth Fletcher No.20



Section of
Wolf Summit 7.5' Quadrangle

SCALE 1"=1000'

LON: -80°28'39.0"

5425

LAT: 39°20'00"

**MAP OF
H.G. ENERGY, LLC
-WATERFLOOD UNIT-
E. FLETCHER 20**

LON: 80°27'30"

11065

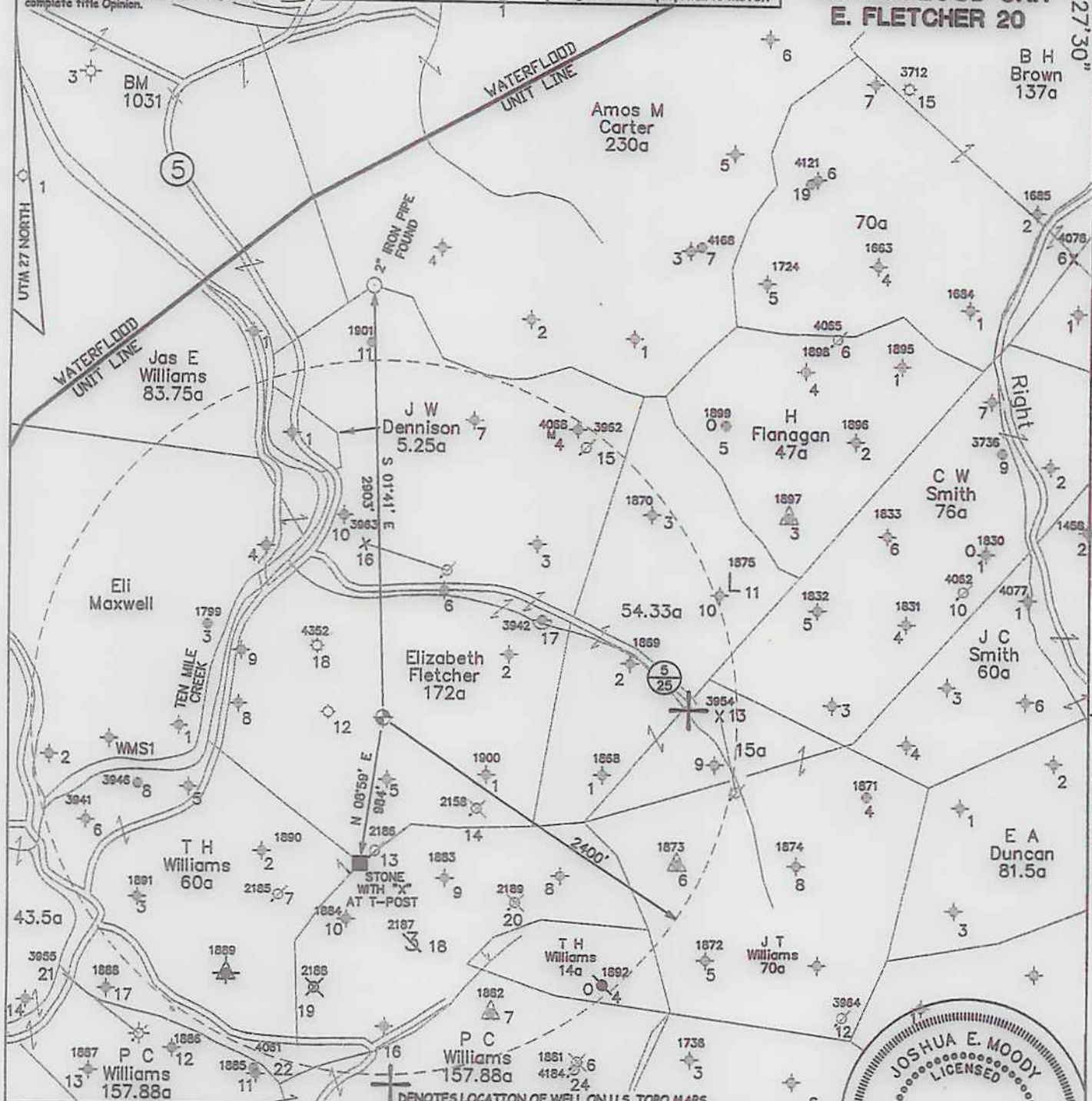
LAT: 39°18'10.6"

SURVEY NOTES
1 - Well ties and Latitude and Longitude were measured by Topcon GRS-1 mapping grade GPS. Bearings are referenced to UTM Grid North (Zone 17 North - NAD 1983).
2 - Surface owners, adjoining information, Lease names, & line mapping obtained from H&E GIS system.
3 - No Title Opinion was provided to the Surveyor during this survey. This survey is subject to a complete title Opinion.

UTM Coordinates
(Zone 17N-NAD 1983)
N-4,350,536m. Surface
E-545,066m.

LOCATION REFERENCES

MAGNETIC BEARING
N 33° E 113.2' FACE OF 30" POPLAR
N 82° E 114.8' FACE OF WEST
FORK OF 12" MAPLE FORK
Brg. Direction is prop. well to the ref.



JOB # 13-014
DRAWING # 13LAKEFLOYD FOLDER
SCALE 1" = 1000'
MINIMUM DEGREE OF
ACCURACY 1/200
PROVEN SOURCE OF ELEV.
MAPPING GRADE GPS

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO
THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION
REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PERSCRIBED BY
THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.



**WEST VIRGINIA DEPARTMENT
OF ENVIRONMENTAL PROTECTION,
OFFICE OF OIL AND GAS**
MOODY LAND SURVEYING, LLC
ST. MARYS, WV 26170



JOSHUA E. MOODY, P.S. 2020
DATE 5/15/13
OPERATOR'S WELL
E. FLETCHER # 20

WELL TYPE: OIL ☐ GAS ☐ LIQUID INJECTION ☒ WASTE DISPOSAL ☐ HORIZONTAL ☐
(IF "GAS") PRODUCTION ☐ STORAGE ☐ DEEP ☐ SHALLOW ☐
LOCATION: ELEVATION 1220' WATERSHED TEN MILE CREEK API WELL # 47-033-058485
DISTRICT TEN MILE COUNTY HARRISON STATE COUNTY PERMIT
QUADRANGLE WOLF SUMMIT 7.5'
SURFACE OWNER M. ROACH, F. FLETCHER, ET AL ACREAGE 28.29 & 42.40 ACRES +/-
OIL & GAS ROYALTY OWNER PATRICIA RENNER ET AL LEASE ACREAGE 175 ACRES +/-
PROPOSED WORK: DRILL ☒ CONVERT ☐ DRILL DEEPER ☐ REDRILL ☐ FRACTURE OR
STIMULATE ☒ PLUG OFF OLD FORMATION ☐ PERFORATE NEW FORMATION ☐
OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
PLUG & ABANDON ☐ CLEAN OUT & REPLUG ☐
TARGET FORMATION 5TH SAND ESTIMATED DEPTH MD= 2,950'
WELL OPERATOR H.G. ENERGY, LLC DESIGNATED AGENT MIKE KIRSCH
ADDRESS 5260 DuPONT ROAD ADDRESS 5260 DuPONT ROAD
PARKERSBURG, WV 26101 PARKERSBURG, WV 26101

COUNTY NAME PERMIT



HG Energy, LLC
5260 Dupont Road
Parkersburg, WV 26101
(304) 420-1100 - Office
(304) 863-3172 - Fax

33058485

✓ 2783
6500

September 24, 2014

Mr. Jeff McLaughlin
WVDEP
Division of Oil & Gas
601 57th Street
Charleston, West Virginia 25304

RE: Elizabeth Fletcher No. 20
Ten Mile District, Harrison County
West Virginia

Dear Mr. McLaughlin:

Enclosed are Forms WW-3A, WW-3B, WW-9, WW-3(B1), mylar of plat, reclamation plan, topo map and copies of the certified mailing receipts for a permit to drill a production well. Also enclosed is our check in the amount of \$650.00 to cover the associated permit fees.

Very truly yours,

Diane White

Diane C. White

Enclosures

cc: Frederick Fletcher – Certified
Michael Roach - Certified
Murray Coal – Certified
Sam Ward – Inspector

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Office of Oil and Gas

OCT 02 2014

WV Department of
Environmental Protection